

January 2, 1970

T. J. Hubbard
R. W. Crosser
R. J. Heaney
V. E. Epperson

Subject: Control of Tailings Dust

1. A schematic or artist's conception of how we intend to utilize the Thiokol equipment for application of soil stabilizing chemicals should be prepared promptly.
2. In addition to this, a narrative should be prepared, such that we can be ready to present our plans to the public should the need arise. The narrative should summarize methods tried in the past as well as indicate alternates that we intend to pursue in the future.
3. Several slides should be made up of the area, equipment used to attempt to control dust emissions, schematics, etc., to demonstrate what we are doing.
4. Bob Heaney should contact Dowell to follow up on any work they may be doing in developing chemicals that might be effective on dry areas of the tailing holding area.
5. Plans for planting Russian Olive trees along the dike should be finalized. Is it possible to perhaps try a few "Lombard Poplar" trees this year?


R. R. Leveille

/mp

cc: J. W. Ribotto
V. E. Epperson

0003

CONCENTRATOR DUST CONTROL
1971
SUMMARY OF EVENTS

1. The daily Coherex spraying operation continued utilizing the Terracruz, water wagon, and Juggernaut
2. Dowell J-197 was used on 4 occasions treating 378 acres of the pond by year's end. The TBM was used as delivery means in all applications save one, when a small biplane (AgCat) was used experimentally as a possible alternative.
3. USU continued research efforts on the agricultural plots. Dike tree planting resulted in some 1,050 Siberian Pea plants being planted.

CONCENTRATOR DUST CONTROL
1971
INDEX AND REFERENCES

INDEX

1. Service receipt, 3Apr71, Dowell, 80 acres with TBM
2. Service receipt, 8Apr71, Dowell, 83 acres with TBM
3. Service receipt, 15Apr71, Dowell, 183 acres with TBM
4. Letter, 28Jun71, T. B. Rees from R. W. Crosser, Jr., alternate methods of aircraft delivery
5. Requisition, 28Jun71, service to treat 100 acres, J-197
6. Service receipt, 28Jul71, Dowell, 17 acres with Ag-Cat
7. Service receipt, 2Aug71, Dowell, 15 acres with Ag-Cat

INPUT FOR MMD-ED QUARTERLY ENVIRONMENTAL CONTROL REPORT

Requested by J. F. Knudsen

(Cont'd)

4. The tree planting program continued through the summer with some difficulty because of earth-moving equipment travelling through the areas requiring trees. However, to date some 2,550 Russian Olive trees have been planted along with 420 each of the Golden Willow and Hybrid Poplar species. Historically, the Russian Olives have grown well in the soil used for dike construction with a minimum of care, but the Golden Willows and Hybrid Poplars must be evaluated further to determine how successfully they will grow, especially through the winter months and early spring.

CONCENTRATOR DUST CONTROL
1969
SUMMARY OF EVENTS

1. The Terracruz and water wagon continued to operate on the pond.
2. USU continued its research on the experimental vegetation plots. The remaining half of the first plot was planted in the spring with various grasses and legumes. Results were disappointing. In the fall one more plot was planted with tall and crested wheat grasses. USBM terminated its financial support of USU as of July 1 and the remaining work was being financed with carryover funds from USBM and USU. Plans were made to continue with USU and its research using joint funds from UCD and MMD-ED.
3. A Katrack vehicle was tested on the pond in August.
4. Both a 2100 and a Juggernaut vehicle from Thiokol were tested on the pond and were subsequently purchased. This action negated the need for another water wagon. Delivery made October 22, 1969.
5. Both Coherex and E641 were tested on the pond in April and subsequently adopted for use on a regular basis as dust control agents; the Coherex applied by the Terracruz (modified from plowing capability to spraying capability), water wagon and Juggernaut, and the E641 applied by helicopter.

Requested by RKL in preparation for reply to O'Keefe regarding extent to which 1st Quarter objectives have been met.

Dust Control Program - First Quarter 1970

1. A tailings dust control program, consisting of a daily spraying operation and a concurrent experimental program, has been developed during the first quarter. Many safety, operating, maintenance, materials handling, and labor problems unique to this new program have been resolved resulting in diminished amounts of air-borne tailings thus far this year. A total of 275 acres of dry tailings have been treated with Coherex, a petroleum resin encrusting agent, and an experimental aerial application of a Dowell product has been made to another 250 acres.
2. Approximately 100 of 4,000 tree seedlings have been planted on the dike and details have been worked out by Utah State University for this year's vegetation growth research project. Considerable activity is scheduled in all facets of the program during the remainder of the year.

CONCENTRATOR DUST CONTROL
1970
INDEX AND REFERENCES

INDEX

1. Memo, 2Jan70, department heads from R. R. Leveille, 1970 dust control plans
2. Letter, 28Jan70, T. B. Rees from C. M. Stout (Dowell), research proposal
3. Letter, 30Jan70, department heads from R. R. Leveille, L. G. Manwaring, dust control coordinator
4. Letter, 5Feb70, L. G. Manwaring from R. J. Heaney, crusting agents
5. Letter, 11Feb70, L. G. Manwaring from R. J. Heaney, Dowell proposal
6. Work order, 10Mar70, from L. G. Manwaring, Dowell test
7. Letter, 16Mar70, D. Burton from T. B. Rees, Dowell insurance
8. Letter, 17Mar70, F. Colladay (Morton) from R. R. Leveille, Dowell test
9. Service receipt, 20Mar70, E641 treatment 250 acres
10. Letter, 2Apr70, J. F. Knudsen from R. R. Leveille, quarterly environmental report
11. Purchase order, 10Apr70, two, 250-acre tests, E641
12. Letter, 17Apr70, T. B. Rees from R. B. Rosene (Dowell) research proposal
13. Memo, 29Apr70, from L. G. Manwaring, dust control - 1st quater 1970
14. Special requisition, 8May70, from L. G. Manwaring, Dowell test
15. Special requisition, 12May70, from V. E. Epperson, further USU research
16. Service receipt, 28May70, Dowell, 50 acres
17. Service receipt, 1Jun70, Dowell, 50 acres
18. Letter, 4Aug70, J. F. Knudsen from K. D. Parks, quarterly environmen' report
19. Service receipt, 24Sep70, Dowell, 50 acres
20. Letter, 13Oct70, J. F. Knudsen from R. R. Leveille, quarterly envirc report

REFERENCES

1. Photos, EF&T 389-1 to -5, 10Jun70, Amphicat all-terrain vehicle tes

CONCENTRATOR DUST CONTROL
1969
INDEX AND REFERENCES

INDEX

1. Special requisition, 14Feb69, Dowell E641 test
2. Memo to file, 28Feb69, from R. R. Leveille, 1969 dust control plans
3. Memo, 24Mar69, R. R. Leveille from R. J. Heaney, tailing pond tests: Dowe-1 E641, Coherex, Union Carbide DCA-70, Thiokol 2100 vehicle
4. Letter, 31Mar69, KCC research from K. H. Nimerick (Dowell), test itinerary
5. Memo, 4Apr69, K. E. Kefauver from R. R. Leveille, test itinerary
6. Memo to file, 9Apr69, From J. W. Ribotto, test itinerary
7. Check list, 10Apr69, From T. J. Hubbard, chemical application rates
8. Photo, T307-4, 29Apr69, Coherex test application
9. Photo, , 10Apr69, Dowell E641 test application by helicopter
10. Memo to file, 11Apr6-, from J. W. Ribotto, test recap
11. Memo to file, 14Apr69, from T. J. Hubbard, phone inquiry, Monsanto re. tailing pond testing of Lion Prime
12. Letter, 16Apr69, W. S. Adamson from K. E. Kefauver, Thiokol 2100 vehicle test
13. Memo, 17Apr69, K. E. Kefauver from R. R. Leveille, Thiokol 2100 vehicle test
14. Memo, 21Apr69, T. J. Hubbard from R. J. Heaney, Coherex application rates
15. Memo to file, 23Apr69, from J. F. Knudsen , Coherex test area inspection
16. Memo to file, 23Apr69, from J. F. Knudsen , Thiokol 2100 vehicle test
17. Photos, 23Apr69, Thiokol 2100 test
18. Memo to file, 23 Apr69, from J. F. Knudsen , Dowell test area inspection
19. Office memo, 23Apr69, from T. J. Hubbard, suppliers addresses
20. Memo, 5May69, R. R. Leveille from K. E. Kefauver, tailing pond test results inquiry
21. Letter, 13May69, F. Colladay (Morton) from R. J. Heaney, toxicological properties, E641
22. Photos, 21May69, Thiokol Juggernaut and 2100 test on tailing pond
23. Letter, 10Jun69, C. M. Stout (Dowell) from R. J. Heaney, further Dowell tests
24. Memo, 11Jun69, T. B. Rees from R. J. Heaney, tailing sample to Dowell
25. Letter, 12Jun69, R. J. Heaney from J. H. Clayton (Coherex), test application
26. Letter, 17Jun69, A. J. Thuli from T. B. Rees, Thiokol tracked vehicle inquiry NY-3142
27. Memo, 17Jun69, J. W. Ribotto from R. J. Heaney, Phillips Petroleum soil stabilizer
28. Memo, 20Jun69, R. R. Leveille from R. J. Heaney, visit, Dowell personnel
29. Photos, 5Aug69, Katrack test
30. Memo, 14Aug69, J. P. O'Keefe from R. R. Leveille, Katrack test
31. Memo, 18Sep69, R. R. Leveille from R. J. Heaney, Coherex application rates
32. Memo, 31Oct69, R. R. Leveille from T. J. Hubbard, dust control operations
33. Letter 24Nov69, S. D. Michaelson from J. F. Knudsen, cooperative vegetation program
34. Memo, 18Nov69, R. R. Leveille from J. F. Knudsen, UCD Vegetation Research: History and Plans
35. Memo, 5Nov69, R. R. Leveille from J. W. Ribotto, DCA-70